

PRODUCT DATA SHEET

PT-401 CATALYZED EPOXY RESIN PT-426 EPOXY SERIES

DESCRIPTION

PT-401 provides excellent chemical and abrasion resistance. It is a two-component system which air dries or may be baked at elevated temperatures for accelerated curing. **PT-401** has been used effectively for many years as a protective coating on the following materials:

Magnesium	Steel	Rubber & rubber like material
Aluminum	Wood	Plastic Parts
Glass		

SPECIFICATIONS

HMS15-1099 TY. I, MIL-I-43553, & A-A-56032D Marking Inks

COLORS

This coating can be provided Yellow and Green.

COATING PROPERTIES & CHARACTERISTICS

Mix Ratio, by volume	16 part Base to 1 part Catalyst
Reducer	PT-1002
Recommended Primer	PT-500 & PT-402
Recommended Dry Film Thickness	1.0 to 1.2
Admixed Viscosity	14 seconds, max #4 Ford
Admixed Weight per Gallon	10.5 lbs.
Theoretical Coverage	600 sq. ft. ² /gal. at 1 mil thickness
Pencil Hardness – Air Dry	HB
Pencil Hardness – Baked	3H
Taber Abrasion (Maximum)	800 cycles/mil/CS-17 wheel with 1 kgm. load
Exterior Durability	Excellent (typical epoxy resin chalking and yellowing)
ASTM Sat Spray Resistance	Passes 1000 hours exposure
Cold Check Resistance (-40F to + 200F, cycle)	Passes after 25 cycles
Flexibility (ambient temperature)	Passes bend over 1/8" Mandrel
Temperature Range	-65F to + 500F
Water Immersion 130F	Passes 10 days exposure
Skydrol 500 to 100F	Passes 100 hours exposure
Dielectric Properties of cured coating	1000 volts/mil

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CHEMICAL PROPERTIES

Typical parts of steel or aluminum coated with **PT-401** have been exposed to the following chemicals for one month with no apparent degradation of coating properties (film thickness approximately 6 mils for these tests):

Ethyl Alcohol	Mineral Spirits	Secondary Butyl Alcohol
Carbon Tetrachloride	Methyl Isobutyl Carbinol	Allyl Chloride
Sodium Methoxide (40%)	Detergent Solution	Citric Acid (10%)
Toluene	Linseed Fatty Acid	Xylene
Sodium Hydroxide (20 %)	Sodium Hydroxide (70%)	Sodium Chloride (25%)
Acetic Acid (20%)	Ammonia Vapor	Hydrochloric Acid Vapor

SHELF LIFE

Shelf life is only applicable for materials stored in unopened and undamaged original factory filled containers. 1 year when stored between 50°-85° Fahrenheit.

SURFACE PREPARATION INSTRUCTIONS

This primer can be applied directly to metal that has been prepared according to a recognized cleaning method such as Federal Test Method Standard, #141 and Method 2013. However, it is recommended that all parts be pretreated with chemical conversion coating materials to produce a pretreatment coating equivalent to PT-402 Acid Etching Wash Primer.

- Scuff the surface with scotch bright pads.
- Dust off the surface with an air hose and wand.
- Wipe off the substrate with IPA or Acetone to remove grime and oils
- Remove all remaining dust and debris by lightly wiping the substrate with a tack or “cheese” cloth
- For additional protection apply PTI’s, PT-402 Acid Etch Primer prior to the Epoxy Primer.

MIXING INSTRUCTIONS

Shake component A in a paint shaker for 5 – 10 minutes for optimal results.

Admix by volume:

1. Add 16 parts by volume of Component “A” to 1 part by volume of Component “B” and stir thoroughly. Stir each well before mixing. Allow to stand one (1) hour at room temperature before using. Reduce with exempt solvent(s) if required (see use of solvent above).
2. Mix only an amount that can be used in 4 hours

Add the Catalyst into the Base.

Admixed material should be allowed a 30-minute induction time for best application results.

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Reduce: PT-1002 to thin the material.

- If using PTI additives to adjust the dry and cure times of the coating, please refer to those Product Data Sheets for specific instructions for admixing the material.

APPLICATION

This product can be applied using conventional air spray equipment, HVLP spray system. Please consult with a PTI representative for specific equipment recommendations and settings.

1. Make sure pots, guns, and lines are purged and cleaned.
2. Mix both base and catalyst thoroughly and filter/strain before spray application.
NOTE: It is not recommended to strain flat/matte coatings.
3. HVLP spray pressure: 7-10psi. Conventional spray pressure 15-30psi.
4. Always air-blow and tack wipe the surfaces to be painted. Aircraft should be grounded to prevent static.
5. Best application results: apply 2 coats: 1 fog/tack coat & 1 full coats from 0.6 – 0.9 mil thickness.
6. Do not allow more than 24 hours to pass before applying the second coat.
7. Recommended Dry Film Thickness is 0.6-0.9 mils.

NOTE: Application of PTI products requires the use of all OSHA approved safety equipment, including proper ventilation. Additionally, PTI products require the recommended temperature/humidity conditions and film thickness ranges for optimal performance. The material, hangar, and aircraft skin temperatures should be no lower than 75° F / 25° C before, during and after application.

DRYING & CURING SCHEDULE

Dry times are based on the dry film thickness between 1.0 to 2.0 mils dry film thickness (25-50 microns).

Air Dry:

Allow applied coating to dry for at least:

- 4 hours – tack free
- 24 hours – dry hard
- 7 days – full cure

Force Cure:

When force curing this material allow 30 minutes air dry followed by 30 minutes in the oven at 150°F and then ramp up the temp to 250°F for 30 minutes. Do not let temperatures exceed 350°F for more than 30 minutes.

Always bring the coating to the “tack free” stage before top coating.

EQUIPMENT CLEANUP

Use clean Acetone, IPA MEK or PT-1002 Reducer. Do not allow material to dry or cure inside any equipment.

HEALTH, SAFETY, & STORAGE REQUIREMENTS

Refer to each individual material SDS (Safety Data Sheet) for specific requirements on the health, safety, storage and handling requirements. Follow all local, state, and national regulations during surface preparation, material application and cleanup.



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PRODUCT INFORMATION & DISCLAIMER

Product Data Sheets are periodically updated to reflect new information. It is important to use the latest and most recent revision for the product being used. The foregoing information is accurate to the best of our knowledge. However, due to differences in customer handling, use and method of application which are not known and are beyond our control, Products Techniques, Inc. makes no warranties as to the end result.